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AUTHOR Maniei, Farahnaz
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ABSTRACT

Counseling is a dyadic interaction between client and counselor, in which their cognitive processes influence how they interact and communicate. To investigate the effect that a match of cognitive complexity between counselor and client has upon the counselor's empathy, 9 counselors and 27 clients participated in a study. After 7 weeks of counseling, all subjects completed an inventory of cognitive complexity, measuring five aspects of cognitive complexity: integration, differentiation, intolerance of ambiguity, intolerance of trait inconsistency, and category width. Cluster analysis was used to place the subjects into cognitively complex and cognitively simple groups. Each counselor then interviewed three clients for 28 to 38 minutes. At the end of each interview both the counselor and the client responded to an empathy inventory. The counseling interviews were audio-taped and rated by two trained judges to assess counselor empathy. An analysis of the results showed: (1) cognitively complex counselors were perceived by their clients as more empathetic than cognitively simple counselors; (2) a match between the cognitive complexity level of counselor and client did not increase the counselor's empathy; (3) clients were more accurate judges of a counselor's empathy than counselors themselves; and (4) the differentiation aspect of cognitive complexity was a more accurate discriminatory factor in distinguishing between counselors with high and low empathy scores. (Author/BL)

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Cognitive Complexity and Empathy in Counseling

By

Farahnaz Maniei

Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, 1984

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The impact of matching counselor and client cognitive complexity on the counselor's empathy.

Farahnaz Maniei, Ed.D.
Indiana University, 1983

This study was designed to investigate the effect that a match of cognitive complexity between counselor and client has upon the counselor's empathy, as measured by the counselor, the client, and independent judges. Five measures of cognitive complexity were used to measure different aspects of cognitive complexity, including integration, differentiation, intolerance of ambiguity, intolerance of trait inconsistancy, and category width. Cluster analysis was used to cluster 36 subjects (27 clients and nine counselors) into cognitively complex and cognitively simple groups. Counselors were enrolled in first practicum of counseling in a graduate program. Each counselor interviewed three clients for 28 to 38 minutes. At the end of each interview both the counselor and the client responded to an empathy inventory (Barrett-Lennard Relationship Inventory). The counseling interviews were audio-taped and rated by two trained judges to assess the counselor empathy.

The results of three two-way analyses of variance and correlational analysis showed: (a) cognitively complex counselors were perceived by their clients as more empathetic than cognitively simple counselors; (b) a match between the cognitive complexity level of counselor and client did not increase the counselor's empathy; (c) clients were more accurate judges of a counselor's empathy than counselors themselves; and, (d) differentiation aspect of cognitive complexity was a more accurate discriminatory factor in distinguishing between counselor with high and low empathy scores.

This study made some contribution to our understanding of the impact of cognitive complexity on an essential factor in counseling effectiveness

(i.e., empathy). Further research might explore the impact of cognitive complexity on variables besides empathy (e.g. counselor's congruence).

Counseling is a dyadic interaction between client and counselor, and their cognitive processes influence the ways in which they interact and communicate. Ivey (1979) believed that matching clients and counselors in "growth producing combinations" contributes to effective counseling. Carr (1970) emphasized that differential compatibility between the therapist and client, which is one aspect of cognitive complexity, is very important in the therapeutic situation. This study was designed to investigate the effect that a match of cognitive complexity between counselor and client has upon the counselor's empathy.

Cognitive complexity derives from Kelly's personal constructs theory. He believed that the individual is actively involved in cognitively organizing his surrounding world and predicting future events. Kelly (1955) called this process "construing". The individual's construing system, or way of anticipating events, is made up of constructs. A construct can be compared to a lens through which the individual looks at his or her world. Each person uses different constructs to process events. Kelly believed that the number of different constructs a person uses in his effort to anticipate events is a measure of cognitive complexity. The counselor in a therapeutic situation looks at the client through the same lens, as it were. The clearer the lens, the more accurate is the counselor's perception of the client.

Empathy has been defined in slightly different ways by various authors (Adler, 1931; Dymond, 1949; Reik, 1949; Remmers, 1954; Rogers, 1957; Duda, 1976). Understanding of others' feelings, thoughts, and experiences is the essence of all these definitions. Thus a cognitively complex counselor, using more

constructs in anticipating counseling events, should be able to identify the clients' feelings, thoughts, and experiences more accurately than is a cognitively simple counselor. In other words, a cognitively complex counselor is more empathic than a cognitively simple counselor. This has been supported in some studies (e.g. Heck and Davis, 1973).

The fact that cognitively complex counselors are more empathetic can be well related to the ability of a cognitively complex individual in : utilizing information better, seeking more novel information, acting more upon their environment, being more efficient in obtaining additional information, and being more discriminative among multi-dimensional stimuli than a cognitively simple individual (Lichtenberg and Heck, 1979; Streufert et al., 1965; Suedfeld and Streufert, 1966; Karlins and Lamm, 1967; Karlins et al., 1967; Tuckman, 1964; Bieri and Tripodi, 1964; and Schneider and Giambra, 1971).

The client's level of cognitive complexity is, in turn, a factor effecting the counselor's empathy. It is clear that the counseling process demands interaction between the counselor and the client. In the counseling process both the counselor and client anticipate events. The counselor's anticipation of the client's feelings, thoughts, experiences, and so forth is basically dependent on the client's verbal report. Yet the accuracy of the client's report is based on his or her construing system, or manner of anticipating events. The more accurately the client perceives and understands these events, the more accurately he or she is able to report them to the counselor. This interaction between the levels of cognitive complexity on the part of the counselor and the client can be an important phenomenon, and its impact on the counselor's empathy needs to be investigated (e.g., Carr, 1970; Heck and Davis, 1973; Blass and Heck, 1978; Ivey, 1979). The present study was proposed to

investigate the impact of this interaction on the counselor's empathy. through the first three hypotheses. The fourth hypothesis is based on Rogers' (1975) belief about the client's accuracy in perceiving the counselor's empathy.

1. Cognitively complex counselors possess higher degree of empathy than do cognitively simple counselors.

2. Cognitively complex counselors possess higher degrees of empathy with cognitively complex clients than with cognitively simple clients.

3. Cognitively simple counselors possess higher degrees of empathy with simple clients than with cognitively complex clients.

4. Clients are better judges of counselors' empathy than are the counselors themselves.

METHODOLOGY

Sample

The subjects who participated in this study consisted of a group of clients and a group of counselors.

Counselors. Eighteen graduate students were asked to participate in this study. This group consisted of three males and fifteen females who were enrolled in first practicum of counseling in the Counseling and Counselor Education Department at Indiana University. The students were assigned to different practicum sites by the department, where they each saw between two and six clients per week. Five measures of cognitive complexity were administered to all subjects seven weeks after they began their practical training. These were Interconcept Distance, Intolerance of Ambiguity, Intolerance of Trait Inconsistency, Category Width, and a Sentence Completion Test. A letter was sent to each practicum site to invite the staff to cooperate with this study. The invitation was followed by a phone call. In spite of these efforts, some practicum sites could not cooperate with the study. As a result, nine subjects (one male and eight females) were eliminated from the subject pool. The remaining subjects (two males and seven females) ranged in age from 24 to 37. Using cluster analysis the subjects were divided into two groups, cognitively complex and cognitively simple, based on their scores on five cognitive complexity measures. Five females and one male ranked in the cognitively complex group, while one male and three females constituted the cognitively simple group. These two groups were significantly different from each other, as showed by the five cognitive complexity measures.

Clients. Three of each of the counseling trainees' clients were asked to participate in this study. A total of 27 clients (15 males and 12 females) ranging from age 13 to 17 were involved. The same measures of cognitive complexity were administered to the clients as were given to the counselors. Cluster analysis was used again to divide the clients into two groups, cognitively complex and cognitively simple. These two groups also displayed significant difference from each other on the cognitive complexity measures.

Instruments

Measures of Cognitive Complexity.

Five measures of cognitive complexity were used in this study to measure different dimensions of cognitive complexity. The rationale behind selecting these five measures follows from Vannoy's (1965) study, in which these measures represented the highest loading on separately extracted factors. Furthermore according to Blass and Heck (1978), on the basis of face validity, the five measures represent a means of assessing cognitive complexity in a social/interpersonal domain such as those found in a counseling situation. The description of five measures follows.

Interconcept Distance Measure of Cognitive Complexity (IDM). IDM was developed by Ware (1958) and modified by Vannoy (1964). The modified format of IDM consists of personal concepts only (e.g., brother; the most successful person who I personally know). These concepts are a representative sample for persons in the individual/social environment. Fourteen seven-point semantic differentiation scales are used by subjects to evaluate each of the concepts. Subjects are asked not to use the same person twice. The complexity level is determined by how the subjects evaluate twenty persons on a seven-point scale. While cognitively complex subjects make numerous distinctions in evaluating

others, cognitively simple subjects tend to evaluate others consistently in the same way. As a result of this, the mean distance between the points is calculated for each subject and this value represents the subjects' score. A Fortran computer program was applied to calculate the mean distance scores and the standard deviation.

Intolerance of Trait Inconsistency (ITI). This measure was developed by Steiner (1954) and was revised by Steiner and Johnson (1963). The measure consists of 15 items, each of which has two pairs of traits. One pair consists of traits which are judged to be equally good while the other pair consists of traits which are judged not to be of equal goodness. The subjects were asked to decide which of the two pairs of traits are more likely to occur together in people. It represents a measure of a person's propensity " to reject the notion that highly desirable and highly undesirable traits coexist within the same person." Steiner and Johnson (1963) found a significant correlation between this measure and the California F-scale (.26, $P < .01$). The ITI gives an indication of the subjects' level of cognitive complexity by the number of times the subjects select the more equally good pair of traits. Higher intolerance of trait inconsistency is reflected by a higher score in this measure.

Intolerance of Ambiguity (IA). IA was developed by Budner (1962). It consists of eight positive and eight negative Likert-type items. Subjects are asked to respond with values such as + 3 (strongly agree), + 2 (moderately agree), etc. This measure was developed from data which totalled 17 samples of 939 subjects. Cronbach's alpha placed the reliability at . 9 and test-retest correlation was .85. The validity was established by asking different judges (such as teachers and psychologists) to rank subjects. The criterion of judgement was based upon the degree of tolerance or intolerance of ambiguity

judged after reading short autobiographies of the subjects. A correlation of .48 ($p < .05$) was obtained. The scoring procedure for this test is different for positively worded items (items 4, 6, 8, 9, 12, 13, 16) and negatively worded items (items 1, 2, 3, 5, 7, 10, 11, 15). For positive items the range of scoring is as follows: a score of seven is for strong agreement; six for moderate agreement; five for slight agreement; three for slight disagreement; two for moderate disagreement; and, one for strong disagreement. It is important to notice that the scoring of negative items ran in the reverse direction; for example, a score of seven was given for strong disagreement, while a score of one represents the other end of the scale (strong agreement). A score of four was used as a default value for omitted items. Higher IA reflects a greater tendency in the subjects to perceive the ambiguous situations as source of threat.

Category Width (CW). This measure was developed by Pettigrew (1958) and was revised be Vannoy (1965). The original test contained 20 items which measured the range or width of each individual's cognitive categories. Vannoy selected those ten items which reflected the highest correlation with laboratory test done in Pettigrew's (1958) study. It was Vannoy's version of the test that was used to measure category width in this study. The items are scored based on the mean of each category. The alternative farthest from the mean is assigned a score of + 3, + 2 for the next farthest, etc. The over-time reliability is .72 and the odd-even reliabilities range from The criterion validity is repeated as .57 ($p < .01$). High significant correlation has been found between this measure and other cognitive tasks, such as Rokearch's narrow-mindedness task.

Paragraph Completion (PC). This test assesses the integrative complexity of conceptual structure as related to interpersonal stimuli. The test consists

of a set of stems; for example, "what I think about rules...". The subject's task is to use the stem as a basis for completing one sentence, and the subject then writes two additional sentences. The five items used in this study were the following: "what I think about rules..."; "when I am criticized..."; "when I am in doubt..."; "when I am not sure..."; and, "when someone disagrees with me..." According to Schrober et al. (1967) these items have the highest inter-reliability and construct validity. Subjects have two minutes to complete each item. The scores of each item range from zero to three. The mean of the five items is the subject's integrative complexity score. The inter-rater reliability coefficients from 26 studies range from .74 to .94. The test-retest reliability for grades 6-13 ranges from .45 to .56. The construct validity of the sentence completion test has been determined mainly by correlating it with intellectual or achievement measures; correlations range from .22 to .43.

Measures of Empathy

Accurate Empathy scale. This scale was developed by Truax and Carkhuff (1967). Trained judges used the scale to rate a counselor's empathy. Scores from one to nine are given by the judges while listening to audio tapes of counseling sessions. The reliability for this scale has reported to be between .67 and .89 (Martin 1968; Sander et al., 1968; and Bergin and Jasper, 1969).

Barrett-Lennard Relationship Inventory. This inventory, developed by Barrett-Lennard (1962), consists of five scales: (1) empathic understanding; (2) level of regard; (3) unconditionality of regard; (4) congruence; and (5) willingness to know. The empathic understanding or perceived empathy scale was used in the present study. This scale, like other scales of the inventory, has two forms: the therapist and the client form. Each form consists of 16 items. The reported reliability for the therapist form is .96 and for the client form

is .86. The content validity of this inventory was assessed by five judges who were counselors with varying levels of experience. A perfect agreement for all except four items was reported. Three of those four items were eliminated and fourth was revised.

Procedure

The five measures of cognitive complexity were administered to all subjects (counselors and clients). The counselors then interviewed the clinets for 28 to 38 minutes at their practicum sites, and their interviews were tape recorded. At the end of each session, both the counselor and the client responded to the Barrett-Lennard Relationship Inventory. Two trained judges listened to audio-tapes and scored the counselor's empathy using the Truax and Carkhuff's empathy scale. The agreement between both judges was .79 ($p < .01$).

Statistical Analysis

Cluster Analysis. Cluster analysis was used to divide subjects (counselors and clients) into two groups: cognitively complex and cognitively simple. The scores of these two groups were based on the five cognitive complexity measures described earlier. The cluster analysis method minimizing differences within groups and maximizing between group variance. The k-means clustering method was used in the present study. This is a method which is based on the distance function coefficients. It requires calculating the sum of square of differences between corresponding scores. In the present study a PKM computer program was used to find two clusters for each group of subjects (counselors and clients).

Analysis of Variance. Three 2 X 2 analysis of variance (ANOVA) were conducted. The independent variables in all three ANOVA's were the counselors' cognitive complexity, with two levels (high and low), and the clients' cognitive complexity, with two levels (high and low). The dependent variable for the first

ANOVA was the counselors' empathy score on the Accurate Empathy Scale as rated by the judges. The dependent variabele for the second ANOVA was the counselors' empathy score on the client's form of Perceived Empathy Scale as rated by clients. Finally the dependent variable for the third ANOVA was the counselors' empathy score on the therapist's form of the Perceived Empathy Scale as rated by the counselors.

RESULTS

Cluster Analysis

Two cluster analyses were used to divide the clients and counselors into homogeneous groups, based on their scores on five cognitive complexity measures. As a result of first cluster analysis, two clusters of clients were found, a high-complexity group and a low-complexity group. There were 16 subjects in the first cluster and 11 in the second one. Two clusters of counselors were found as the result of the second cluster analysis; a high-complexity group and a low-complexity one. There were six subjects in the high-complexity group and three in the low-complexity one. Table 1 shows the means and standard deviations of the five cognitive complexity measures used to cluster the subjects.

Four matched and mis-matched groups of subjects were formed: (a) counselor high-client high; (b) counselor low-client high; (c) counselor low-client low; and (d) counselor high-client low. Each counselor saw three clients who were all either cognitively complex, cognitively simple or a combination of both. Sixteen cognitively complex clients were interviewed by five cognitively complex and two cognitively simple counselors. And 11 cognitively simple clients were interviewed by three cognitively complex and three cognitively simple counselors.

Table 1. Means and Standard Deviations of the Subjects' Scores on the Five Measures of Cognitive Complexity.

			ITI	IA	ESQ	PC	IDM
Client	High N=16	Mean	8.12	54.5	35.25	1.80	10.02
		S.D.	2.41	8.28	6.38	2.31	2.26
	Low N=11	Mean	7.90	65.70	20.20	1.03	10.01
		S.D.	1. 50	6.21	8.18	0.56	1.50
Counselor	High N=9	Mean	8.00	56.67	42.16	1.30	8.80
		S.D.	2.08	8.63	3.07	0.22	1.20
	Low N=3	Mean	9.00	56.00	27.00	0.57	9.42
		S.D.	2.16	3.55	4.24	0.06	1.29

Multivariate Analysis

Two multivariate t²tests were conducted to determine whether the two clusters of counselors (cognitively complex and cognitively simple) and the two clusters of clients (cognitively complex and cognitively simple) were significantly different from each other. The results of the first Hotellings test, conducted on the counselors' scores on the measures of cognitive complexity, indicated that the two clusters of counselors were significantly different (estimated $F(1,7) = 12.40$, $p < .05$). The results of the second Hotellings test, conducted on the clients' scores on the cognitive complexity tests, also showed a significant difference between the two clusters of clients (estimated $F(1, 25) = 13.07$, $p < .001$).

Analysis of variance.

Three two way analyses of variance (ANOVA) were conducted to test the first three hypotheses of the study. Those hypotheses are the following:

1. cognitively complex counselors possess higher degrees of empathy than do cognitively simple counselors.
2. cognitively complex counselors possess higher degrees of empathy with cognitively complex clients than with cognitively simple clients.
3. Cognitively simple counselors possess higher degree of empathy with cognitively simple clients than with cognitively complex clients.

The independent variables in all three ANOVA's were counselors' and clients' cognitive complexity with two levels--high and low.

The dependent variables for the first, second, and third ANOVA's were counselors' empathy from the clients' perceptions, from the counselors' perceptions, and from the judges' perception respectively. Table 2 shows the subjects' scores on three measures of dependent variables.

Table 2. Means and Standard Deviations of the Subjects' Scores on the Empathy Measures.

			Clients' Perceptions		Counselors' Perceptions		Judges' Perceptions	
			Counselor		Counselor		Counselor	
			High N=6	Low N=3	High N=6	Low N=3	High N=6	Low N=3
Client	High N=16	Mean	18.84	7.33	16.30	20.66	5.07	4.00
		S.D.	11.72	20.81	8.03	5.03	1.38	2.69
	Low N=11	Mean	23.20	10.50	20.80	10.50	4.60	5.16
		S.D.	5.76	12.14	13.05	8.73	1.14	1.16

Table 3 shows the results of the three univariate analyses of variance. The results of the first ANOVA, with counselors' empathy from clients' perceptions as the dependent variable, showed that the main effect for counselors was significant ($F(1, 23) = 4.58$, $p < .05$). Hence, cognitively complex counselors were perceived by the clients as more empathic than cognitively simple counselors. Neither the main effect for clients nor the interaction effect were significant. The dependent variable for the second ANOVA was counselor empathy, based upon counselor perception. No significant results were obtained to confirm any of the first three hypotheses.

Table 3. A Summary of Three Univariate Analysis of Variance for Counselors' Empathy Scores.

	Source of Variance	df	MS	F	p
Counselor's Empathy Perceived By Clients	Cognitive Complexity:				
	Counselor	1	675.57	4.59	<.05
	Client	1	86.69	.59	NS
	Counselor by Client	1	1.81	.01	NS
Counselor's Empathy Perceived By Themselves	Cognitive Complexity				
	Counselor	1	80.66	.98	NS
	Client	1	3.01	.04	NS
	Counselor by Client	1	175.58	3.37	NS
Counselor's Empathy Perceived By Judges	Cognitive Complexity				
	Counselor	1	.17	.08	NS
	Client	1	.07	.03	NS
	Counselor by Client	1	3.48	1.63	NS

Finally, the third ANOVA was conducted to test the hypotheses for the last dependent variable, counselor empathy as rated by the judges. No significant results were obtained.

Correlational Analysis

The results of a correlational analysis showed significant correlation between the clients' perceptions of counselor empathy and the judges' perceptions of counselor empathy ($r = .53$, $p < .002$). But there was no significant relationship between the judges' perceptions and the counselors' perceptions of counselor empathy ($r = .14$, $p > .05$). Therefore there was more consistency between the judges' perceptions of counselors' empathy and clients' perceptions.

Five more correlations between the counselors' scores on five cognitive measures and the counselor's empathy scores were conducted in order to answer the following question: which aspect of cognitive complexity is a better discriminating factor between high and low empathic counselors? Table 4 shows the correlations between five measures of cognitive complexity and the counselors' empathy scores.

Table 4. Correlation Between Five Measures of Cognitive Complexity and Counselors' Empathy Scores.

Counselor's Empathy	ICD	IA	ITI	PC	CW
Judges' Perception	.53	-.009	.36	-.61	-.032
Clients' Perception	.15	.14	-.49	-.43	.55
Counselors' Perception	.11	.16	-.30	-.08	.08

The results showed that Interconcept Distance measure and Intolerance of Trait Inconsistency (low score on this measure reflects a greater tolerance of trait inconsistency) have a higher correlation with the empathy scores than the other measures of cognitive complexity. Paragraph Completion was found to have the lowest correlation. Hence, Interconcept Distance and Intolerance of Trait Inconsistency discriminate between high and low empathic counselors better than the other measures used.

DISCUSSION

The purpose of the present study was to investigate the effect that a match of cognitive complexity between counselor and client has upon the counselor's empathy, as measured by the counselor, the client, and independent judges. Four research hypotheses and one research question were formulated. The first hypothesis was that cognitively complex counselors possess higher degrees of empathy than do cognitively simple counselors. Results partially confirmed this hypothesis. It was found that cognitively complex counselors were perceived by their clients as more empathic than cognitively simple counselors. This finding is both consistent with the results of the Heck and Davis (1973) study, and lends support to other studies which have found that cognitive complexity influences an individual's perception, communication, and information processing (Leventhal, 1957; Ware, 1958; Zajonc, 1960; Lichtenberg and Heck, 1979; Watson, 1976; Holloway and Wolleat, 1980).

Although neither judges nor counselors themselves found cognitively complex counselors to be more empathic than cognitively simple counselors, clients were able to perceive a difference. Several factors may be involved in this finding. First, counselors were recruited from a single counselor training program and probably all received training which emphasized a particular counseling style. As a result, there may not have been wide variations in style for the judges to distinguish. Second, the judges did not attend the counseling sessions, but rather listened to audio-tapes of the interviews. Since they did not observe the actual verbal and non-verbal communication between the counselor and client, the ability of these judges to assess the empathy of the counselor may have been slightly limited. Third, it is a widely accepted fact that

counselors are less accurate in estimating their own empathy level than either clients or judges. Finally, the counselors in this study were enrolled in their first practica. The self-rating of these counselors may reflect the general trend of beginning counselors who underestimate their own counseling abilities. It may well be that the client is the most accurate judge of the counselor's level of empathy, since it is the client who finally judges whether the counselor has understood his or her thoughts, feelings, and experiences.

The second and third hypotheses stated that a match between the cognitive complexity level of the counselor and client increases the counselor's empathy. Results failed to support these two hypotheses. Though the finding was consistent with the results of Parsons' (1977) and Larimer's (1977) sudies, it was inconsistent with other studies in this area (e.g. Carr, 1970; Landfield, 1971; McLachlan, 1972). This can be explained through an examination of the similarities and differences between these studies. In the Parsons' and Larimer's studies, counselors and clients were matched on integration aspect of cognitive complexity while all other studies cited matched them using the differentiation aspect of cognitive complexity. Since integration and differentiation are independent aspects of cognitive complexity, they might have different impacts on the counselors' empathy and so lead to different results in research. To determine whether this was, in fact, the case a correlational analysis was conducted in this study on the subjects' scores on the measures of cognitive complexity and counselors' empathy scores. The results showed that the integration aspect had the lowest correlation with empathy, while the differentiation and tolerance of trait inconsistency aspects had the highest correlations. This implies that differentiation and tolerance of trait inconsistency are more accurate discriminatory factors in distinguishing between counselors with high and low empathy scores.

In the present study five aspects of cognitive complexity were used to match counselors with clients including integration and differentiation. The results were different from studies which measured only differentiation. Naturally this speculation will require further research to be validated.

The last hypothesis stated that clients are more accurate judges of a counselor's empathy than the counselor himself or herself. The results of the present study showed a consistency between clients' and judges' perceptions of the counselor's empathy. Since counselors' perceptions of their own empathy is subjective,they may be less accurate in contrast to clients and unbiased judges. This finding supports the results of another study (Rogers et al., 1967) that the client's perception agrees rather well with that of unbiased juges, but there is low agreement between counselors and judges.

Implications

The present study has both theoretical and practical implications.

Theoretical Implications

The personal construct theory can be related to the client-centered theory by linking the 'empathy' and 'construing' constructs. "Empathy" refers to the counselor's understanding of the client's feelings, thoughts, and experiences, while "construing" refers to a cognitive process whereby the counselor tries to construe the client's social behavior in many dimensions. Since results generally supported the idea that cognitively complex counselors are more empathic than congitively simple counselors, one can claim that there is a close tie between a counselor's empathy level and his ability to construe. The more empathic the counselor is, the more accurate he or she is in construing the client's world.

Practical Implication

Measurement. The results of this study have some practical implications for future studies. Since the differentiation aspect of cognitive complexity was found to be closely related to and predictive of a counselor's empathy, future studies might best choose measures with an emphasis on differentiation.

Counseling Training Program. The counselor trainee's level of cognitive complexity needs to be determine in order to inform them of the nature of their cognitive processes. This knowledge would eventually help them to understand and to compensate for their difficulties in relating to some clients. It could also prevents the conflicts, disappointments, and resentments of counseling sessions which are primarily caused by the counselor's lack of understanding and inaccurately construed information.

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